



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,016	03/26/2004	Greg Efland	BP 3210	9815
34399	7590	06/06/2006	EXAMINER	
GARLICK HARRISON & MARKISON P.O. BOX 160727 AUSTIN, TX 78716-0727			SMITH, SHEILA B	
			ART UNIT	PAPER NUMBER
			2617	

DATE MAILED: 06/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Applicant(s)</b>	<b>Applicant(s)</b>	
	10/811,016	EFLAND ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sheila B. Smith	2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 13 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                         |                                                                             |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                                |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____                                                             | 6) <input type="checkbox"/> Other: _____                                    |

DETAILED ACTION

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by He et al. (US 2004/0198420 hereafter, He).

***Regarding claims 1,11***, He et al. discloses essentially all the claimed invention as set forth in the instant application, further He et al. discloses a RF front-end of dual-mode wireless transceiver. In addition He et al. discloses an integrated circuit wireless communication device, a method for controlling wireless communications with at least two wireless transceiver circuits (which reads on fig. 1 and Page 2 (paragraphs 0019-0025)), comprising: generating a first antenna (43a) control signal at a first pin set of said wireless communication device (which reads on figure 1 sw1), said first antenna control signal to be used for controlling receiving or transmitting operations for a first communication packet (which reads on fig. 1 and Page 2 (paragraphs 0019-0025)); routing said first antenna control signal to a first wireless transceiver circuit upon detecting that the first communication packet is to be received or transmitted using the first wireless transceiver circuit (Fig. 1 and Page 2 (0019-0025)); generating a second antenna (43b) control signal at the first pin set of said wireless communication device (which reads on fig.

1 and Page 2 (paragraphs 0019-0025), said second antenna control signal to be used for controlling receiving or transmitting operations for a second communication packet; and routing said second antenna control signal to a second wireless transceiver circuit upon detecting that the second communication packet is to be received or transmitted using the second wireless transceiver circuit (which reads on page 2 (paragraphs 0026)).

***Regarding claims 2, 12,*** He et al. discloses the first wireless transceiver circuit comprises an 802.11g radio transceiver circuit and the second wireless transceiver circuit comprises an 802.11a radio transceiver circuit (which reads on fig. 1 and Page 2 (paragraphs 0019)).

***Regarding claims 3,13,*** He et al. discloses a multiplexer circuit is used for generating the first and second antenna control signals (which reads on fig. 1 and Page 2 (paragraphs 0019-0025)).

***Regarding claims 4,14,*** He et al. discloses a plurality of antennas are coupled to the first wireless transceiver circuit, and wherein the first antenna control signal specifies that one of the plurality of antennas is to be used for receiving a wireless communication signal (which reads on fig. 1 and Page 2 (paragraphs 0019-0025)).

***Regarding claims 5, 15,*** He et al. discloses a plurality of antennas are coupled to the first wireless transceiver circuit through a diversity switch, and wherein the first antenna control signal controls the diversity switch to connect one of the plurality of antennas to the wireless communication device (which reads on fig. 1 and Page 2 (paragraphs 0019-0025)).

***Regarding claims 6,16,*** He et al. discloses a PHY module in the wireless communication device generates the first and second antenna control signals that are selectively coupled on a

common signal line to the first or second transceiver circuits by a first selection circuit (which reads on fig. 1 and Page 2 (paragraphs 0019-0027)).

***Regarding claims 7,17,*** He et al. discloses the PHY module and the first wireless transceiver circuit are integrated on a single integrated circuit (which reads on fig. 1 and Page 2 (paragraphs 0019-0027)).

***Regarding claims 8,18,*** He et al. discloses the second wireless transceiver circuit is integrated on a single integrated circuit (which reads on fig. 1 and Page 2 (paragraphs 0019-0027)).

***Regarding claim 9,*** He et al. discloses the second wireless transceiver circuit comprises a plurality of antennas, and wherein the second antenna control signal specifies that one of the plurality of antennas is to be used for transmitting a wireless communication signal (which reads on fig. 1 and Page 2 (paragraphs 0019-0027)).

***Regarding claim 10,*** He et al. discloses the second wireless transceiver circuit comprises a plurality of antennas, and wherein the second antenna control signal specifies that one of the plurality of antennas is to be used for receiving a wireless communication signal (which reads on fig. 1 and Page 2 (paragraphs 0019-0027)).

***Regarding claims 19,20,*** He et al. discloses essentially all the claimed invention as set forth in the instant application, further He et al. discloses a RF front-end of dual-mode wireless transceiver. In addition He et al. discloses an apparatus for providing dual band wireless communications, comprising: a baseband processing module for processing receive or transmit baseband signals in accordance with 802.11a and 802.11g wireless communication protocols

Art Unit: 2617

(which reads on fig. 1 and Page 2 (paragraph 0019)), said baseband processing module generating first and second antenna switch control signals, said baseband processing module comprising a multiplexing circuit for routing one of said first and second antenna switch control signals to a single set of output pins for the baseband processing module; a first front end modulator comprising one or more antennas for sending or receiving a first wireless signal in accordance with the 802.11g wireless communication protocol under control of the first antenna switch control signal (which reads on fig. 1 and Page 2 (paragraphs 0019-0027)); a second front end modulator comprising one or more antennas for sending or receiving a second wireless signal in accordance with the 802.11a wireless communication protocol under control of the second antenna switch control signal (which reads on fig. 1 and Page 2 (paragraphs 0019-0027)); where each of said first and second front end modulators are coupled in parallel to the single set of output pins (as exhibited in figure 3).

***Response to Arguments***

2. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheila B. Smith whose telephone number is (571)272-7847. The examiner can normally be reached on Monday-Thursday 6:00 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S.Smith  
May 30, 2006

  
JOSEPH FEILD  
SUPERVISORY PATENT EXAMINER